

Apple No. 10/796,597
Amdt date July 16, 2007
Reply to Office action of April 16, 2007

Amendments to the Drawings:

The attached sheets of drawings include changes to FIG. 1, FIG. 2 and FIG. 3 and replace the original sheets including FIG. 1, FIG. 2, FIG. 3 and FIG. 4. .

Attachment: Replacement Sheets including FIG. 1, FIG. 2, FIG. 3 and FIG. 4
 Annotated Sheets Showing Changes to FIG. 1, FIG. 2 and FIG. 3

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REMARKS/ARGUMENTS

Claims 1-62 are pending of which claims 1, 31, 39 and 46 are independent. Claims 1, 31, 32, 39 and 46 are being amended. No new matter has been added.

Applicants respectfully request reconsideration and allowance of claims 1-62.

The specification is being amended for typographical errors.

I. Objection to the Drawings

Figures 1, 2 and 3 are objected to for not including the legend "Prior Art." Figures 1, 2 and 3 are being amended to include the legend "Prior Art." Applicants submit herewith corrected drawing sheets together with annotated drawing sheets. As such, Applicants request that the objection to the drawings be withdrawn.

II. Objection to the Specification

The specification is being objected to under 37 CFR §1.75(d)(1) for allegedly failing to provide antecedent basis for the claimed subject matter. According to the Office action, first to sixth voltage levels are not identified in the drawings or the specification.

Applicants respectfully traverse.

Applicants submit that the features of the claims are shown in the figures. Some of the claims cover a number of embodiments that are shown in one or more different figures. The voltage value of each of the first to sixth voltage levels may change from one figure to the other. When a correspondence between a claim and a figure is established, then the meaning of the voltage levels becomes clear in view of the figure. When a claim corresponds to a number of figures, going from figure to figure will yield the voltage value for different embodiments represented by the same claim.

For example, claim 5 may correspond to a number of figures including figures 4 and 7-20. When claim 5 is taken to correspond to figure 4, the first period may correspond to the duration of Vs in the misfiring erase period 200 and the second period may correspond to the

remainder of the misfiring erase period 200. In that case, the first voltage of claim 5 would correspond to the voltage V_s applied during the misfiring erase period 200 to the electrode Y and the second voltage may include the erase ramp of 0 to V_e applied to the electrode X. As explained above, when claim 5 corresponds to a number of different figures, in each figure the value of the first voltage may be different. For example, if claim 5 corresponds to figure 7, then the first voltage is V_{s1} that is different from V_s . Claim 6 depends from claim 5 and would correspond to some or all of the same figures. In claim 6, the first voltage may be equal to V_s if the sustain voltage is V_s . Claim 9 also depends from claim 5 and states that "the second voltage gradually changes from a third voltage to a fourth voltage." Claim 9 too may correspond to a number of figures including figure 4 and in that case, the third voltage would be 0 and the fourth voltage would correspond to V_e .

Claim 12 does not depend from claim 5. However, claim 12 that includes a first voltage and a second voltage, may correspond to figures 4 and 7-20. In each figure, the first voltage and the second voltage may have a different value. For example, if claim 12 is taken to correspond to figure 4, then in claim 15 that depends from claim 12, the first voltage may be V_s . Also, if claim 12 is taken to correspond to figure 10, then in claim 16 that depends from claim 12, the third voltage would correspond to V_s and the fourth voltage would correspond to 0; and if claim 12 is taken to correspond to figure 13, then in claim 16, the third voltage would correspond to 0 and the fourth voltage would correspond to V_s .

As the above examples indicate, the voltage levels may be identified by referring to the figures and are accordingly supported by the specification.

II. Rejection of Claims 1-62 under 35 U.S.C. § 102(e)

Claims 1-62 are rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Setoguchi (U.S. Patent No. 6,608,609.)

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Claims 1-30

Independent claim 1 now recites "A method for driving a plasma display panel (PDP) comprising a plurality of first electrodes and second electrodes in parallel on a first substrate, and a plurality of third electrodes crossing the first and second electrodes and being on a second substrate, said first, second, and third electrodes defining a plurality of discharge cells, the PDP being driven during a plurality of subfields of a frame, at least one of the plurality of subfields comprising a first reset period, a second reset period immediately following the first reset period, an address period and a sustain period, the method comprising: setting the plurality of discharge cells in the first reset period; further setting the plurality of discharge cells in the second reset period; selecting at least one discharge cell from among the plurality of discharge cells in the address period; and discharging said at least one discharge cell in the sustain period." (Emphasis added.) Support for these amendments may be found throughout the specification and drawings and, for example, in figure 2 and on p. 2, line 14 to p. 3, line 3, of the specification. Applicants submit that claim 1 is distinguished from Setoguchi.

Setoguchi is directed to a method for driving a plasma display panel where "a pulse having a higher voltage than a priming pulse for executing a priming discharge after the activation of the cells is applied between the first and the second electrodes only at the time of the activation of the cells." (Setoguchi, Abstract) In all the various embodiments of Setoguchi, the main reset voltages (called priming pulses in some embodiments of Setoguchi) are preceded by some type of preconditioning voltage (called erase pulse in some embodiments of Setoguchi) that modifies the wall charge condition prior to the main reset voltage. (See Setoguchi, col. 11, line 41 to col. 14, line 35 providing a summary of all embodiments.)

According to the Office action, figures 3 and 8 and column 3, line 64 to column 4, line 2, column 7, lines 35-44, and column 12, lines 26-29 of Setoguchi teach the "setting the discharge cells in a first reset period" and "further resetting the discharge cells in a second reset period" of claim 1. (Office action, p. 4.)

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However, because the preconditioning pulse of Setoguchi occurs prior to the reset period and a subfield is shown to begin with its reset period, Setoguchi does not disclose "at least one of the plurality of subfields comprising a first reset period, a second reset period immediately following the first reset period, an address period and a sustain period" as claimed by claim 1. (See Setoguchi, col. 11, line 41 to col. 14, line 35 providing a summary of all embodiments.)

Claims 2-30 depend from independent claim 1. These dependent claims incorporate all the terms and limitations of their respective independent claim, in addition to other limitations, which together further patentably distinguish these claims over the cited references. Therefore, Applicants request that the rejection of claims 2-30 over Setoguchi be withdrawn.

Claims 31-38

Independent claim 31 now recites "A method for driving a plasma display panel (PDP) comprising a plurality of first electrodes and second electrodes ... and a plurality of third electrodes ... defining a plurality of discharge cells, the PDP being driven during a plurality of subfields of a frame, at least one of the plurality of subfields comprising a reset period and an erase period following the reset period, the method comprising: setting the plurality of discharge cells during the erase period depending on a charge condition is provided in the reset period" (Emphasis added.) Applicants submit that claim 31 is distinguished from Setoguchi.

As discussed above, each subframe of Setoguchi includes at most one main reset period for each subfield and the main reset period may be preceded by a preconditioning waveform occurring during a previous subfield. However, Setoguchi does not disclose "at least one of the plurality of subfields comprising a reset period and an erase period following the reset period." Accordingly, Setoguchi does not anticipate independent claim 31.

Claims 32-38 depend from independent claim 31. These dependent claims incorporate all the terms and limitations of their respective independent claim, in addition to other limitations, which together further patentably distinguish these claims over the cited references. Therefore, Applicants request that the rejection of claims 32-38 over Setoguchi be withdrawn.

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Claims 39-45

Independent claim 39 now recites "A method for driving a plasma display panel (PDP) ... the PDP being driven during a plurality of subfields of a frame, at least one of the plurality of subfields comprising a reset period and a setting period immediately following the reset period, the method comprising: setting the plurality of discharge cells during the setting period when a predetermined condition is provided in the reset period" (Emphasis added.) Applicants submit that claim 39 is distinguished from Setoguchi.

As explained above, Setoguchi does not teach "subfields comprising a reset period and a setting period immediately following the reset period," and, therefore, does not anticipate claim 39.

Claims 40-45 depend from independent claim 39. These dependent claims incorporate all the terms and limitations of their respective independent claim, in addition to other limitations, which together further patentably distinguish these claims over the cited references. Therefore, Applicants request that the rejection of claims 40-45 over Setoguchi be withdrawn.

Claims 46-62

Independent claim 46 now recites "A plasma display panel (PDP) comprising ... a driving circuit for supplying a driving signal to a discharge cell ... the driving circuit driving the PDP during a plurality of subfields of a frame, at least one of the plurality of subfields comprising a reset period and an address period, wherein the driving circuit applies a first voltage to the first electrode and a second voltage to the second electrode between the reset and address periods, and abnormal charges from among the charges formed in the reset period are erased by the first and second voltages" Applicants submit that claim 46 is distinguished from Setoguchi.

As discussed above, the preconditioning voltages of Setoguchi are applied before reset and Setoguchi does not teach that "the driving circuit applies a first voltage to the first electrode and a second voltage to the second electrode between the reset and address periods" when the reset and address periods are in the same subfield. Further, Setoguchi intends to build up charges

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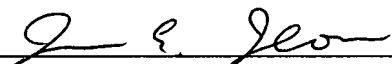
for a subsequent reset and does not disclose that "abnormal charges from among the charges formed in the reset period are erased." Accordingly, Setoguchi does not anticipate claim 46.

Claims 47-62 depend from independent claim 46. These dependent claims incorporate all the terms and limitations of their respective independent claim, in addition to other limitations, which together further patentably distinguish these claims over the cited references. Therefore, Applicants request that the rejection of claims 47-62 over Setoguchi be withdrawn.

IV. Concluding Remarks

In view of the foregoing amendments and remarks, Applicants earnestly solicit an early issuance of a Notice of Allowance with claims 1-62. If there are any remaining issues that can be resolved over the telephone, the Examiner is cordially invited to call Applicants' attorney at the number listed below.

Respectfully submitted,
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FS/cash

SLS PAS734355.3-*07/16/07 10:21 AM



FIG. 1
(PRIOR ART)

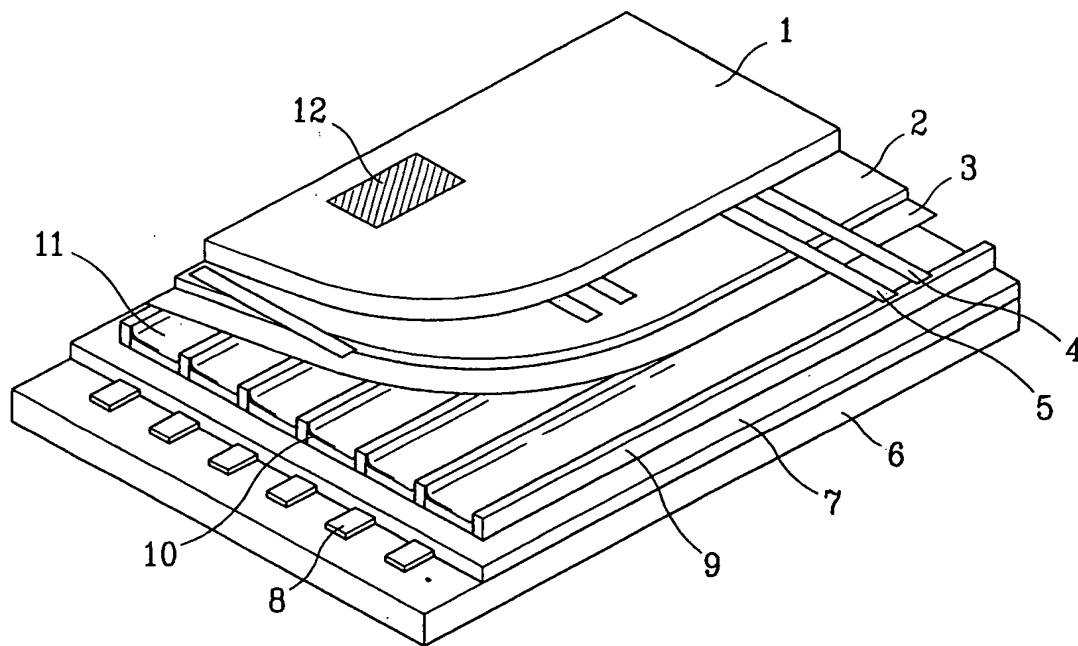


FIG. 2
(PRIOR ART)

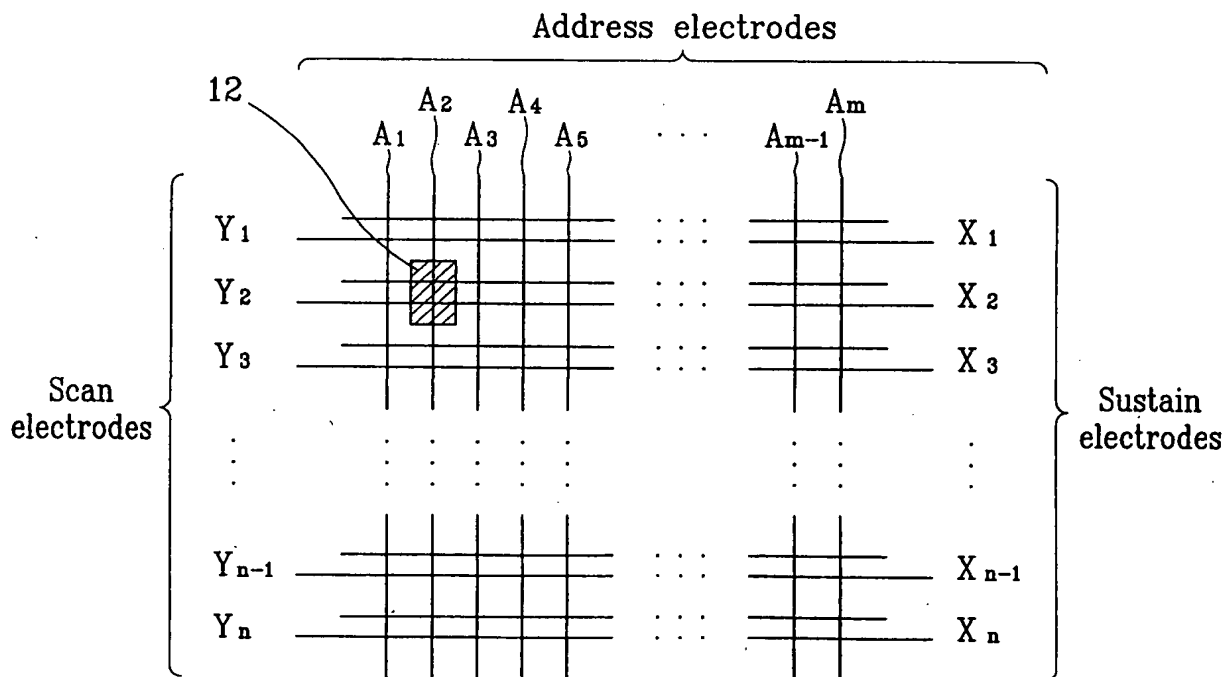


FIG. 3
(PRIOR ART)

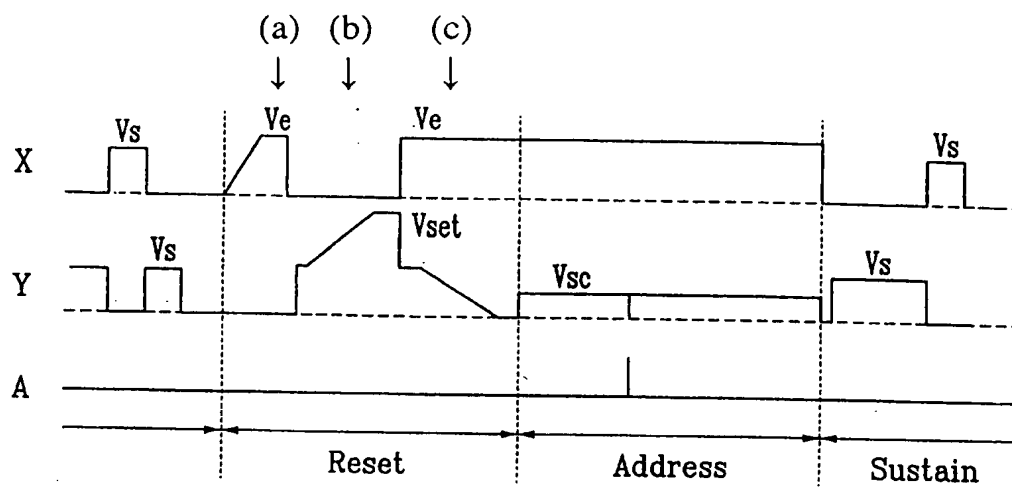


FIG. 4

